What is claimed is:

1. A random data generator comprising:

(a) means for detecting signals from astronomical events;

(b) means for calculating random data from said signals; and

5   (c) means for storing said random data.

2. A random number generator comprising:

(a) means for detecting signals from astronomical events;

(b) means for calculating random numbers from said signals;

(c) means for storing said random numbers; and

10   (d) means for distributing said random numbers to receiving means.

3. The random number generator of claim 2, in which the astronomical events comprise cosmic ray events, solar wind events or solar flare events.

4. The random number generator of claim 2, in which the means for detecting signals is an electromagnetic signal detector suitable for operation in

15 space.

5. The random number generator of claim 2, in which the means for calculating the random numbers comprises a processor under software control for processing the signals using mathematical rules.

6. The random number generator of claim 5, in which the mathematical

20 rules comprise computations of standard deviations of pulses representing data from the signals.

7. A method for generating random data, comprising:

(a) collecting entropy by detecting signals from astronomical events;

(b) generating random data from the signals using mathematical rules;

25   (c) storing the random data;

(d) performing digital unbiasing on the random data; and

(e) creating and storing a random data pool from the unbiased random

data.

8. A method for generating random numbers, comprising:

30   (a) collecting entropy by detecting signals from astronomical events;

(b) storing the signals;

(c) generating random numbers from the signals using mathematical rules;

(d) storing the random numbers;

(e) performing digital unbiasing on the random numbers;

(f) creating and storing a random number pool from the unbiased random

5   numbers; and

(g) distributing numbers from the random number pool to users.

9. The method of claim 8, in which the mathematical rules of step (c)

comprise:

(a) storing a series of pulses received from a detector, each pulse

10   representing raw data from the detector received over a period of time, the number

of pulses being statistically significant; and

(b) performing statistical deviation calculations on each pulse, as follows:

(1) if the pulse is equal or greater than one positive standard

deviation, it is considered a "1";

15   (2) if the pulse is equal or greater than one negative standard

deviation, it is considered a "0"; and

(3) if the pulse is between negative one standard deviation and one

positive deviation, it is considered a null.

10. A method of improving the randomness of games of chance by

20   providing access to pure random numbers generated from astronomical events,

comprising:

(a) detecting signals from astronomical events;

(b) generating random numbers from the signals using mathematical rules;

(c) storing the random numbers;

25   , (d) processing the random numbers to eliminate bias; and

(e) distributing the processed random numbers to operators of games of

chance.

11. A method for generating random data, comprising:

(a) detecting signals from space phenomena using dedicated sensors

30   located in space;

(b) transmitting the signals to a base station on Earth;

18

(c) storing the signals;

(d) applying procedures to the signals to generate random data; and

(e) transmitting the random data to one or more end users.

12. A method for generating random data, comprising:

5   (a) receiving signals from space phenomena using dedicated sensors located on Earth;

(b) transmitting the signals to a base station;

(c) storing the signals;

(d) applying procedures to the signals to generate random data; and

10   (e) transmitting the random data to one or more end users.

13. A method for generating random data, comprising:

(a) receiving signals from space phenomena at an existing Earth-based collection facility;

(b) transmitting the signals to a base station;

15   (c) storing the signals;

(d) applying procedures to the signals to generate random data; and

(e) transmitting the random data to one or more end users.

14. A method for generating random data, comprising:

(a) detecting signals from events that are influenced by space phenomena;

20   (b) transmitting the signals to a base station;

(c) storing the signals at the base station;

(d) applying procedures to the signals to generate random data; and

(e) transmitting the random data to one or more end users.

15. The method of claim 14, in which the events comprise ocean wave or

25 cloud motions, and the space phenomena comprise gravitational or solar radiation influences.

16. A method for generating a periodic flow of random numbers, comprising:

(a) detecting signals from extra-terrestrial sources for use as seeds;

30   (b) transmitting the seeds to a base station;

(c) storing the seeds;

(d) applying algorithmic calculations to the seeds to generate random numbers; and

(e) transmitting the random numbers to one or more end users.

17. A method for generating a continuous flow of random numbers, comprising:

(a) detecting signals from extra-terrestrial events;

(b) transmitting the signals continuously to a base station;

(c) generating a continuous flow of random numbers from the signals; and

(d) transmitting the random numbers continuously to one or more end users.